be selected which are known to grow well in the vicinity or in similar localities. It is of course desirable to introduce new kinds which are useful or ornamental, but, where the success of the experiment is doubtful, it should be tried on a small scale. Deep-rooted and hardwood trees may be planted in exposed situation in preference to shallow-rooted and soft ones.

4. A list of trees which are more or less suitable for avenues is given below. Information as full as is available is given for each, but it must be remembered that local conditions may render this information incorrect and it will be for the Officers in charge of operations to note such cases. The distances shown are for trees planted on average soil. If the soil is rocky the distance should be reduced by five feet and if the soil is deep and fertile the distance should be increased by five feet.

(2) List of Trees

E. English, H. Hindi, M. Marathi, G. Gujarati, K. Kannad.

1. *Acacia arabica.* E. Babul; H. Babul; M. Bhabhul; G. Baval; K. Karijali.

A small thorny tree with many small branches and small bluish green leaves. Bark dark brown and rough. It bears leaves and pods are greatly relished by goats. Unripe pods yellow globular flowers about ½″ diam. and pods 6″ long. The are used in the preparation of ink. Seeds excreted by goats grow easily otherwise they have to be soaked for some days in cowdung water before sowing. The tree produces the common gum arabica. The wood is tough, close grained and durable and is used for cart wheels etc. However, the wood is mostly used for fuel. The bark is used for tanning. This tree is unsuitable for roadsides on account of its thorns but it may be planted along canals. Distance apart 30 feet.

2. *Acacia moniformis.* E. Australia Babul.

A graceful medium sized evergreen tree with slightly droping branches and greyish brown bark. The narrow bright green leathery leaves are scattered along slender twigs.

It bears yellow spikes of flowers in loose bunches near the ends of the twigs. The pods are flat and twisted. Flowers September to October. Easily grown from seed. Distance apart 30 feet.

3. *Acrocarpus fraxinifolius* E. Shingle tree.

A large deciduous tree with bipinnate leaves and fairly smooth greyish brown bark. The small red flowers are borne in dense clusters. The pods are strap shaped. The wood is fairly hard and used for boxes etc. Grown from seed. Distance apart 50 feet.

4. *Adenanthera pavonina.* E. Red Sandalwood; H. Rakta-chandana; M. Gunj.

A medium sized deciduous tree with pinnate opposite leaves and dark grey bark.

Flowers small, yellowish and scented. Pods long and twisted when opening. The bright scarlet shining seeds are used by jewelers and goldsmiths as measures of four grains weight. The wood is hard and red and is useful for cabinet making. Grown from seed. Distance apart 30-40 feet.

5. *Aegle marmelos.* E. Bael; H. Bel; M. Bel; G. Bili; K. Bel.

A medium sized deciduous tree with grey bark. Branches armed with long spines, leaves trifoliate flowers greenish white, sweet scented, fruit smooth orange yellow, spherical or elongated 3″ to 6″ diam. with thin tough woody shell. The seeds are embedded in orange coloured pulp which has great medical value and is specially used to secure deysectry. The fruit is also used for making *sherbat.* The bark and leaves are used in medicine. The tree is considered sacred by Hindus. Grown from seed. Distance apart 40 feet.

6. *Ailanthus excelsa.* H. Mahaneem; M. Maharukh; G. Moto Arduso; K. Dodumani.

A tall deciduous quick growing tree with large greyish green pinnate leaves and rough light brown bark. Flowers small yellowish. Pods flat and papery. The wood is soft white and light but fairly strong. Used for various purposes where lightness is needed. Grown from seed. Distance apart 40-50 feet.

7. *Albizzia lebek.* E. Black siris; H. Siris; M. Shirus; G. Sarasdo; K. Sirsal.

A large spreading hardy deciduous tree with brownish grey bark. Its leaves are divided into a number of blunt unequal sided leaflets. The flowers are borne on the tips of the branches in the hot season. New leaves also appear at this time.

From February to May the tree is covered with long flat straw coloured pods. The wood is hard, seasons well and is used for furniture, building etc. Easily grown from seed. Distance apart 40-50 feet.

8. *Albizzia procera.* E. White Siris; H. Safed Siris; M. Kinai; G. Dholo Sarasdo.

A large deciduous quick growing tree with a long clean bole and whitish or pale grey bark. Leaves similar to A. lebek bright green above and pale underneath. The whitish green flowers are borne in small spherical beads in open clusters at the ends of the branches. The pods are narrow, flat and brown when ripe. The wood is straight-grained, hard and durable. Used for bridges, houseposts, implements etc. Grown from seed. Distance apart 40-50 feet.

9. *Alstonia Scholaris.* E. Devil's Tree; H. Chatiun; M. Satvin; K. Hale.

A large evergreen tree with dark brown bark and branches usually arranged in whorls. The leaves are smooth shining dark green above and whitish below. Flowers are small, greenish white, sweet scented, and borne in clusters from October to December. The wood is light and soft and not very durable. It is used for making boxes, blackboards etc. Grown from seed. Distance apart 45 feet.

10. *Anacardium occidentale.* E. Cashew; H. Hijjali badam; M. Caju; G. Caju; K. Kachumak.

A small tree with bright green leathery leaves and brown bark. The leaves give a pleasant smell when crushed. The flowers are greenish and sweet scented. The fruit which is really the enlarged stalk is brightly coloured yellow or crimson. Juice extracted from the fruit is used in distillation. The nut which is the real fruit is borne outside. Grown from seed. This tree is more suitable for Parks and Gardens than for the roadside. Distance apart 30 feet.

11. *Artocarpus integrifolia.* E. Jack Tree; H. Kathal; M. Phanas; G. Phanas.

A medium sized evergreen tree with dark green shining foilage and a thick trunk with dark brown warty bark. Flowers insignificant sweet scented. Fruit large cylindrical greenish with rough surface. It contains many kidney shaped seeds,

each embedded in soft pulp which is eaten and is much esteemed. The fruit has a very strong sweetish smell when ripe. The wood is yellow and used in cabinet making, building etc. Grown from seed which must be sown fresh, singly in pots as they do not transplant well. Distance apart 40 feet.

12. *Azadirachta indica.* E. Indian Lilac nim; M. Balant Nimb; G. Limdo; K. Bevinamar.

A large graceful hardy evergreen tree with rough brown bark and delicate foliage. The small white sweet scented flowers are borne in great abundance in loose clusters. The flowers and new leaves appear in March when the branches are almost bare of foliage. The fruit is a small yellow berry containing a single seed set in a juicy pulp and yields an oil which is very valuable in medicine and soap making. The leaves are bitter but are eaten by cattle. The timber is hard close grained and durable as is used for ship-building, agricultural impliments, furniture etc. Grown from seed. Distance apart 40 feet.

13. *Barringtonia racemosa.* E. Indian Oak; H. Hijjal; M. Mankumbh; G. Samuda Phal; K. Kempukanjin.

A stout middle sized evergreen tree with greyish brown bark. Leaves large and clustered near the ends of the branches. The flowers are cream coloured with pink stamens and are borne in long pendulous spikes with the flowers facing downwards. Fruits are large and egg shaped each containing a single seed. The wood is used as firewood. Grown from seed. Distance apart 40 feet.

14. *Bassia Latifolia.* E. Mohwra; H. Mohwa; M. Madhuk; G. Mahudo; K. Ippemar.

A large hardy decidouous tree with fairly smooth ash-coloured bark. The leaves are large and leathery and are clustered near the ends of the twigs. The new tender leaves are a bright russet colour. The white fleshy cup shaped flowers have a peculiar scent, and are eaten. Dried flowers are used for distillation. The fruit is oval about 1" diameter and contains a single seed. A butterlike grease is obtained from the seed which is used for soap making and as an adulterant of ghee. The wood is hard and is used for furniture, cart wheels etc. Grown from seed. Distance apart 35-45 feet.

15. *Bauhinia pupurea.* E. Camel's Foot Tree; H. Kachnar; M. Kanchan; G. Krishnavali; K. Kempumandar.

A medium sized evergreen tree with brown bark and leathery leaves which are cleft into two lobes giving them a camel-foot shape. The large showy fragrant flowers are borne in loose clusters at the ends of the branches in November and December. The pods are long narrow and flat. They burst when drying and throw the seeds to a distance. The wood is fairly hard and is used for making impliments. Grows from seeds. Distance apart 35 feet.

16. *Bauchinia Variegata.* E. Camel's Foot Tree; H. Kachnar; M. Kanchan; G. Krishnavali; K. Kempumandar.

A small tree resembling B. pupurea but is deciduous for a short time in January or February when the flowers appear. The large purple, pink or white flowers almost cover the branches making the tree a beautiful sight. The bark is used for medicinal purposes. Grown from seed. Distance apart 30-35 feet.

17. *Bombax malabaricum.* E. Red Silk Cotton tree; H. Simal; M. Lal Sanwar; G. Simro; K. Elar.

A large tall stately deciduous tree with stout comical prickles. The under bark is deep red in colour. The branches are more or less horizontal. The leaves are digitate with five to seven leaflets. The leaves fall in February when the tree gets covered with large crimson flowers which drop down causing much litter. The pods burst in May scattering the silk cotton which is blown about. The wood is light and soft and is much used for packing cases, canoes, lining wells etc. It also makes good charcoal. Grown from seed. Distance apart 50 feet.

18. *Brownea grandiceps.* E. Rose of Venezuela.

A small evergreen tree with pinnate leaves and pointed leaflets. The young leaves are enclosed in pinkish scales which drop off and the leaves hang limp from the ends of the branches. They are first purplish and then become glossy green. The scarlet flowers are borne in bunches on the under sides of the small branches. The pods are flat and curved. Flowers appear in February and March also sometimes in September. Grown from seed. Distance apart 30 feet.

19. *Butea monosperma* (*frondosa*). E. Flame of Forest; H. Dhak; M. Palas; G. Khakhro; K. Muttale.

A medium sized deciduous tree with gnarled trunk and large coarse dark greyish leaves. It bears profuse clusters of orange red flowers in February March when the leaves have fallen. A tree in full flower is a gorgeous sight. The pods are broad and flat, thickened at one end each pod bearing one seed. The leaves are used as plates and the flowers produce a yellow dye. The wood is soft and used for making charcoal. Grown from seed which should be sown in pots as the plants do not stand transplanting wall. Distance apart 30 feet.

20. *Caesalpina coriaria*. E. Divi-divi; M. Divi-Deevi; K. Aldekai.

A low tree with spreading branches and rough grey brown bark. The minute leaflets are dark green above and greyish below. The small yellowish green sweet scented flowers are borne in dense clusters at the ends of the branches. The thick brown twisted pods are valuable for tanning and also for the preparation of ink. The pods and bark are used in medicine. The wood is hard and heavy. Grown from seed. Distance apart 30 feet.

21. *Calophyllum inophyllum*. E. Alenxandrias Laurd; H. Sultan Champa; M. Undal; G. Udan.

A handsome medium sized evergreen tree with smooth greyish black bark and dark green thick shinning leaves. It grows well on the sea coast. It bears pretty white fragrant flowers resembling orange blossoms. The fruit is spherical about 1½" diam. bearing a sigle seed. Oil is entracted from the seeds. The wood is close-grained and fairly hard and is used in cabinet making etc. The tree flowers from May to December. Grown from seed. Distance apart 35 feet.

22. *Cassia fistula*. E. Indian Laburrium; M. Bahava; G. Garmars; K. Kakke.

Called the Indian laburnam. A hardy medium sized deciduous tree with light brown bark. The leaves fall in the beginning of the hot season and in April the tree is covered with large bright yellow flowers which hang in loose bunches. The fresh leaves appear together with or just after the flowers. The pods are about two feet long, cylindrical and dark choco-

late brown in colour. The pulp is a purgative. The wood is used in agricultural impliments Grown from seed. Distance apart 40 feet.

23. *Cassia gracilis*. E. Horse Cassia.

A small or medium sized deciduous spreading tree with fairly smooth grey bark. The leaflets are narrow and reddish when young and dark russet green when mature. A profusion of lilac pink flowers are borne in bunches in April when the leaves have fallen. The pods are thick cylindrical and about nine inches long. The pulp of the pods is a purgative. The wood is not very useful. Grown from seed. Distance apart 35 feet.

24. *Cassia Javanica*. E. Java Cassia.

A beautiful small deciduous tree with fairly smooth brown bark. The narrow blunt leaflets are bright green in colour. The bright pink flowers are borne in clusters on short leaflets branches. The pods are dark brown long and cylindrical. The flowers are borne in April and May and new leaves are produced about the same time. The tree is useful medicinally. The wood is not very useful. Grown from seed. Distance apart 35 feet.

25. *Cassia marginate*. E. Red Cassia.

Red cassia (sym. C Rox burghi) A small graceful tree with cracked brown bark. Branches spreading and somewhat dropping. The leaves are more slender than the other cassias. The small fragrant cerise or terra-cotta flowers are profusely borne in narrow clusters among the leaves and remain on the tree longer than the other cassias. It flowers from May to July. The pod is long, smooth and cylindrical. The wood is used for wheels and handles. Grown from seed. Distance apart 35 feet.

26. *Cassia renigera*. E. Burmese Pink Cassia.

A small graceful spreading deciduous tree with brownish grey bark. The pink scented flowers are borne in April and May in short bunches along the bare branches. It resembles C. Javanica. The fresh leaves appear together with or soon after the flowers. The pod is long cylindrical and brownish black in colour. The wood is not very useful. Grown from seed. Distance apart 35 feet.

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27. *Casuarina equisetiflia.* E. Casuarina; H. Vilayati Saru.

A large evergreen tree with dropping slender branches and long needle like leaves. There are separate male and female trees. The flowers are inconspicuous. The female tree bears small woody globular cones. These trees give scenty shade. The wood is hard and makes good beams and posts. It is much used for fuel in South India. The bark is dark brown and is used for tanning. Grown from seed. Distance apart 40 feet.

28. *Chrysophyllum cainito.* E. Star Apple.

Star apple. A compast evergreen medium sized tree with dark green leaves which are golden underneath and the bark brown. The flowers are small purplish white. The purplish coloured fruit is smooth globular and about the size of an apple, the core being star shaped. The pulp is eaten. Grown from seed. Distance 40 feet.

29. *Cochlospermum gossypium.* E. Buttercup tree; H. Pili Kapas; M. Galgal.

A medium sized deciduous tree with stout branches and light coloured bark marked with furrows. The leaves which are borne on long stalks towards the ends of the branches, fall in January and for a few months the branches remain bare. The large bright yellow flowers appear in March April in clusters at the ends of the bare twigs giving the tree a very striking effect. The fruit is a large pear shaped pendulous capsule. To each seed is attached a quantity of pure white silky floss which is used for stuffing pillows. The gum from the bark is useful. The wood is very soft and used for torches. Grown from seed. Distance apart 40 feet.

30. *Colvillea racemosa.* E. Colville's Glory.

A handsome medium sized deciduous tree with pinkish or coppery bark. It resembles the gulmoha when not in flower the feathery leaves being larger than those of gulmohr. The leaves are shed in the beginning of the hot season and the new leaves appear in May. The flowers which are orange in colour are borne in dense conelike spiked which hang in clusters from the tips of the branches. The tree flowers in August-September when there are few other trees in flower. The pods are flat, about 7″ long. Grown from seed. Distance apart 40 feet.

31. *Couropita guianensis.* E. Canon ball tree; H. Shivlingan.

E. Cannon ball tree. A tall evergreen tree with narrow pointed leaves clustering round the ends of branches. Flowers are borne in loose bunches on leafless twigs springing from the trunk. The flowers which are about 3" across with curved petals are a pleasing mixture of yellow white and pink. The fruit is brown, large spherical and hard containing a cream coloured pulp. Flowers appear throughout the hot season. The timber has a bad smell and is not useful. Grown from seed. Distance apart 40 feet.

32. *Dalbergia latifolia.* E. Indian rosewood; H. Bilayati shisham.

A medium sized deciduous tree with grey bark which peels off in flakes. The leaflets are roundish with blunt ends and are arranged alternately. The small whitish flowers grow in short branching clusters among the leaves. The pods are flat and brown about 3" long, each usually containing two seeds. The new leaves appear in the hot weather. The purple black wood is valuable and is much used for making furniture being hard and close grained but easily worked. Grown from seed. Distance apart 40 feet.

33. *Dalbergia Lancaolaria.* H. Takoli.

A tall graceful deciduous tree with rather dropping branches and smooth grey bark which peels off in patches. The leaflets are bright green narrow at the base and rounded at the tip. The small mauve coloured flowers are borne in profusion in clusters at the ends of the twigs. The pods are brown, flat and pointed. Fev leaves and flowers are produced in May. The wood is white and not durable. Grown from seed. Distance apart 40 feet.

34. *Dolbergia Sissoo.* E. South Indian Redwood; H. Shisham.

A large deciduous tree with rough grey bark which peels off in strips. The leaflets are roundish with pronounced points and are arranged alternately. The flowers are small yellowish white sweet scented and borne in short branching clusters. The pod is thin and pale brown and is blown about by the breeze. The wood is hard close grained, durable and seasons well. It is extensively used for furniture, boat building etc. and is considered to be the finest of Indian timbers for carving. The leaves fall in the cold season and are soon replaced by new ones which are quickly followed by the flowers. Grown from seed. Distance apart 40 feet.

35. *Erythrina indica.* E. Coral tree; H. Pharad; M. Paranga, G. Pandarvo; K. Halivan.

A medium sized deciduous tree with light green foliage and light yelowish grey smooth bark which peels off in thin papery flakes. The branches are armed with conical black prickles. The leaves are shed in the cold season and the tree remains bare till the flowers appear in February March. The leaves appear sometime later. The bright scarlet showy flowers are borne in dense tufts at the ends of the stems. The pod is long and round with distinct joints between the seeds. The wood is very light and soft but fairly tough and is used for boxes etc. There is also a white flowered variety and one with variegated leaves. Easily grown from cuttings. Distance apart 35 feet.

36. *Eucalytus rostrata.* E. Red gum tree.

A tall quick growing evergreen tree with greyish green long narrow pointed leathery leaves and dark grey trunk. The stalks of young leaves and twigs are reddish. This is a hardy drought resisting variety of eucalyptus. The flowers are small greenish coloured and borne in clusters in the axils of the leaves. The seeds are enclosed in small woody capsules. The wood is light coloured hard and close grained and is used in coach building etc. The gum is red. Grown from seed. Distance apart 35 feet.

37. *Eucalyptus teriticornis.* E. Eucalyptus; M. Nilgiri.

It is similar to E. Rostrata but more erect growing with broader leaves larger capsules and grey gum. It is quick growing hard and drought resisting. Grown from seed. Distance apart 30 feet.

38. *Eugenia Jambolana.* E. Java plum; H. Jaman.

A handsome large evergreen tree with oval leathery shining leaves and light grey bark. The small fragrant whitish flowers are borne in clusters in the hot season. The fruits which ripen in May June vary in size and shape and are almost black when ripe. Each bears a simple seed set in juicy pink pulp. Good cultivated varieties yield a fruit which is much eaten and fetches a good price. An alcoholic drink is prepared from the juice. The wood is reddish brown fairly hard and durable and is used for building, agricultural implements etc. The bark is used for tanning and dying. Grown from seed. Distance apart 45 feet.

39. *Feronia elephantum.* E. Wood apple; H. Kavitha; G. Kothu; K. Beldemer.

E. wood-apple : A middle sized hardy evergreen tree with a straight trunk, dark grey bark and small dark green shining leaflets. The small greenish flowers are borne in short clusters. The spherical grey fruit 3″ to 5″ diam. give the tree an ornamental effect. The pulp which is brown when ripe has a strong smell. It is eaten and used in making Jelly. The wood is hard and useful for building, cart making etc. Flowers appear in March and the fruits ripen in October. Grown from seed. Distance apart 35 feet.

40. *Ficus bengalensis.* E. banyan; H. Bar; G. Vad; K. Alad.

A large practically evergreen tree with glossy dark green leathery leaves and spreading branches which send down aerial roots to the ground. When these roots have obtained a footing in the earth they form additional trunks. The leaves are good for fodder. The bright red fruit (figs) are eaten by birds. The seeds often germinate on other trees or on the walls of buildings when it damages the masonry. The wood is of little value. Usually grown from large cuttings 8 to 10 feet high planted in the hot season. Distance apart 50 to 60 feet.

41. *Ficus Benjamina.* E. Java fig.

A large graceful spreading evergreen tree with dark green oval shining leaves dropping branches and light grey smooth bark. The fruits are small orange coloured figs. The branches sometimes produce a few aeriel roots. The wood is not very useful. Grown from cuttings. Distance apart 50 feet.

42. *Ficus glomerata.* E. Monkey fig; H. Gular; G. Umbro; K. Attimav.

A medium sized practically evergreen tree with greyish green leaves and greyish brown bark. It is the common or wild fig. It has a milky juice from which bird lime is prepared. The leaves and bark as well as the galls that grow on the leaves are used in medicine. The figs which are eaten but which are very inferior to the garden fig are borne in clusters along the branches and even on the trunk. Its leaves are used as fodder. Grown from seed. Distance apart 40 to 45 feet.

43. *Ficus Krishnae.*

This is supposed to be a variety of Ficus bengalensis but the leaves are doubled near the base to form a cup. It is not so strong growing and the aerial roots are less freely produced. There is a legend that the God Krishna transformed these leaves into cups for drinking. Grown from cuttings. Distance apart 45 feet.

44. *Ficus religiosa*. E. Peepul; H. Pipal; G. Piplo; K. Arrli.

A well known large spreading tree with smooth pale greyish bark. The leaves are broad with long points and have long slender stalks so that they tremble with every breath of air and are constantly flickering. The seeds are carried by birds and germinate on other trees as well as on walls of buildings. In the latter case they do much damage. Being sacred it is not lapped or felled by Hindus. It does not give much shade and is not very good for avenues. The wood is very inferior. Distance apart 45 to 50 feet.

45. Ficus tsiela. H. Pipri.

A fine large hardy spreading evergreen tree with oval leaves and smooth greyish bark. It is largely used for avenues in the drier districts and will grow where it is difficult to establish other large trees. The fruits are small whitish or purplish. The wood is worthless except for fuel. Grown from cuttings. Distance apart 45 feet.

46. *Filicium decipens*. E. ferntree; H. Katu.

A handsome medium sized compact evergreen tree with dark green fernlike shining leaves and blackish bark. It is rather slow growing. Flowers minute. Fruit a small egg shaped purple berry containing one seed. The wood is hard and strong and useful for building. Grown from cuttings. Distance apart 35 to 40 feet.

47. *Carcina cowa*. E. Cowa mangosteen.

A tall slender tree with pointed shining leaves grey bark and dropping branches. The leaves are dark green below and reddish above. The male and female flowers are borne on the same plants, the male flowers being smaller and in denser clusters, yellow or reddish yellow in colour. The fruit is a reddish berry about 2″ diam. slightly lobed with a depression at the top. It is edible but not palatable. Flowers appear in March and the fruits ripen in May June. A yellow dye is made from the bark. The wood though hard is not durable Grown from seed. Distance apart 35 feet.

48. *Garcina mongostana*. E. mangosteen.

A small tree with large leathery leaves. It bears male and female flowers. The former are purple or red about 1½″ diam.

The fruit is fleshy about 2½" diam. dark purple in colour. It is considered to be one of the most delicious of fruits. Distance apart 30 feet.

49. *Gliricida maculata.* E. Madura shade tree.

A small deciduous tree with long slender branches and graceful leaves which are divided into pointed leaflets which are deep green above and greyish below. The mature bark is grey but that on young branches brownish with white spots. The leaves fall in the cold season and in February the tree is covered with pretty mauve flowers which are borne in dense clusters. It is a quick growing tree but the branches are very brittle. The leaves are not eaten by cattle. Grown easily from seed or cuttings. Distance apart 20-30 feet.

50. *Jacaranda mimosifolia.* E. Mimosa leaved Jacaranda.

A graceful medium sized deciduous tree with leaves resembling those of gul mohr but with smaller leaflets. The bark is smooth and pale grey. The pretty blue flowers are borne in large loose sprays at the ends of the branches in March-April. The fruit is round flat woody capsule. The wood is scented and streaked with purple and black. The tree is rather slow growing. Grown from seed. Distance apart 35 to 40 feet.

51. *Kigelia pinnata.* E. Sausage tree.

A large handsome spreading tree with stiff leaves and large dull maroon coloured flowers which hang down in candelabrum like clusters. They have an unpleasant smell and attract flies. The large sausage like grey fruits hang on long stalks and contain many seeds set in a fibrous pup. It causes a lot of litter when the leaves drop in January or February but the tree is quickly covered with new leaves. The bark is smooth grey black. The wood is hard and of good quantity. Grown from seed. Distance apart 50 feet.

52. *Kleinhovia Hospita.* E. Tree antigonon.

A medium sized tree with roundish crown and pale brown bark. The leaves are oval or heart shaped and borne on long stalks. It bears small pink flowers in large loose bunches at the ends of the branches from August to October when the tree is covered over with blossom. The fruit is a hollow papery bladder. The wood is white and soft. Grown from seed. Distance apart 35 feet.

53. *Lagerstroemia. Flos—Reginae.* E. Queen flower; H. Jarul; K. Marnvathal.

A medium sized deciduous tree with longish leaves and smooth greyish bark which peels off in irregular flakes. The large beautiful lilac or pudplish flowers are borne in stiff open clusters at the ends of the branches. The fruit is a small woody egg-shaped pod containing a number of winged seed. The wood is light red hard strong and durable and used for boat making. It is an important timber tree in Bengal. New leaves appear in March-April and the flowers in April and June. Grown from seed or cuttings. Distance apart 35 feet.

54. *Mangifera indica.* E. Mango; H. Am; M. Amba; G. Ambo; K. Mau.

A large shady evergreen tree with spreading branches and rough blackish bark. The leaves are long narrow leathery and pointed. The greenish or purplish sweet scented flowers are borne in bunches at the ends of the branches in the cold season and the fruit ripens, in the hot season. It is one of the most valuable fruits in India. The tree succeeds where the water level is not at a great depth below the surface. The wood is used for planking door and window frames etc. It is readily eaten by insects. When grown for fruit it is propagated by grafting but for roadside planting it is better grown from seed as those plants are stronger and longer lived. It is better to rear the plants in pots as thereby they suffer less when transplanting. Distance apart 45 feet.

55. *Melaleuca leucadendron.* E. White bottle brush; H. Kayaputi.

A medium sized evergreen tree with narrow leathery dark green leaves and whitish bark which peels off in papery flakes. The small whitish flowers are borne in cylindrical spikes resembling bottle brushes. The leaves are strongly scented when crushed and yield the cajuput oil which is used in medicine. The seed is minute and does not germinate easily but seedlings grow up around the tree. Distance apart 40 feet.

56. *Melia Azederach.* E. Persian lilac; H. Bakayan; G. Bakan nimbdo; K. Buhudbevin.

A graceful quick growing medium sized deciduous tree with small narrow pointed leaflets and greyish brown bark. The small lilac coloured scented flowers are borne in loose branches

clusters which are often partly hidden by the foliage. The fruit is a small oval shining yellow berry containing a simple seed. The flowers and new leaves appear in March. The leaves bark and fruit are used in medicine. The branches are rather brittle. Grown from seed. Distance apart 35 feet.

57. *Michelia champaca.* E. Golden champa; H. Champa; K. Sumpje.

A samll tree with handsome foliage and smooth grey bark. The leaves are about 8″ long and pointed. The large sweet scented orange coloured flowers are borne singly. They fetch a good price in the market. The tree is not very hardy and is rather difficult to establish in dry climates. The small round greenish spotted fruit are borne in clusters. The bright red-seeds drop out when the fruit bursts. A scented oil is obtained from the flowers which also yield a yellow dye. The wood is soft but durable and is used for furniture, planking etc. The flowers appear throughout the hot weather and rains. Grown from seed. Distance apart 25 to 35 feet.

58. *Millingtonia hortensis.* E. Indian cork tree; Ver. akasnim.

E. Indian cork tree. A tall stately erect growing evergreen tree with a straight trunk and thick yellowish white bark. The leaflets are broad but pointed. The long white tubular sweet scented flowers are borne in November-December in large open sprays at the ends of the branches. The flowers drop to the ground forming a white sweet scented carpet. The tree rarely produces seed. The wood is soft yellowish white and resembles pine wood. The tree is grown from root cuttings or suckers which are freely produced. Distance apart 30 to 35 feet.

59. *Mimosops Elengi.* E. Indian medler; H. Bakul; M. Oweli; G. Borsali; K. Bakul.

A fairly large handsome evergreen tree with pretty dark green shining leathery leaves and a straight trunk with dark grey bark. It bears small dull white stary sweet scented flowers which drop to the ground. The fruit is a small orange shining berry containing a single seed in a juicy pulp. It is eaten by poor people. The flowers retain their scent even when dry and a perfume can be made from them. The leaves are useful for making festoons for house decoration. The bark can be used for tanning. The wood is hard and close grained and

useful for carts furniture building etc. Grown from seed. Distance apart 30 to 40 feet.

60. *Mimosops hexandra.* H. Khinni; G. Rayan.

A fairly large hardy evergreen tree with stiff branches and dark green leathery shining leaves resembling those of bakul but smaller and more rounded. It bears small yellow berries each containing one or two black seeds. Fresh fruit as well as dried fruit is sold in the market. The straight shoots can be made into walking sticks. The wood is hard and similar to that of bakul. Grown from seed. Distance apart 40 feet.

61. *Ochrocarpus longifolius.* H. Suringi.

A medium sized evergreen tree with large oblong leathery shining leaves and smooth dark grey bark. The leaves are dark green above and much smaller and marked with veins on the underside. The small rose coloured or red stiped fragrant flowers are borne in small clusters on the small branches. The fruit resembles an acorn and encloses one or more seeds in a pulpy juice. The wood is red, evergrained and hard and is used for planking. Grown from seed. Distance apart 35 feet.

62. *Parkia biglandulosa.*

A large tree with compound bipinnate leaves spreading branches and light grey smooth bark. The leaflets are very small and light green in colour. The flowers are small and borne in compact round heads at the ends of the branches. The pods are long and flattened. It is a quick growing tree. The wood is soft and used for boxes etc. Grown from seed. Distance apart 45 feet.

63. *Pettophorum ferrugineum.* E. Yellow gold mohur.

A large handsome evergreen tree with elegant dark green foliage and smooth grey bark. The bigsinnate leaves are divided into small leaflets. The midribs and young stems are covered with rusty coloured down. The beautiful yellow scented flowers are borne in large stiff sprays at the ends of the branches. The flowers chiefly appear from March to May and a second flowering occurs in September. The sap wood is of little value but the heartwood which is hard and blackish is used in cabinet making. This is a good quick growing shady tree for the roadside. The pods are flat and woody. Grown from seed. Distance apart 45 feet.

64. *Pyllanthus districhus.* E. Star gooseberry; Ver. harfar-auri.

A small tree with dark green pinsiate leaves and smooth grey bark. The leaflets are thin and pointed. The tiny reddish brown flowers are borne in slender clusters along the stems. The fruits which are often borne in dense masses are alike large round ribbed pale green buttons each having a hard stone in the centre. The fruits are acid and juicy and make a delicious preserve. The tree flowers in the beginning of the hot season and the fruit is ready in May-June. Sometimes fruits are borne at intervals throughout the year. Grown from seed or cuttings. Distance apart 25 feet.

This tree is more suitable for Parks and gardens than for the roadside.

65. *Phyllanthus Emblica.* Ver. amla, aonla.

A small deciduous tree with greenish small feathery leaves, many branches and smooth greenish grey bark. The small greenish yellow flowers are borne along the small branches. The round fruit is yellowish or brownish with a hard stone in the centre surrounded by fleshy acid astringent covering. The fruits are used for pickles and preserves and also eaten by children. The acid taste changes to a sweetish taste in the mouth. It is an important article in Indian medicine. The bark is used for tanning. The wood is hard and close grained and is used for agricultural impliment. Grown from seed. Distance apart 30 feet.

66. *Pitheco-lobium* Saman. E. Rain tree; H. Bilaiti siris.

A large practically evergreen quick growing tree with dark tree with dark green foliage, spreading branches and rough blackish bark. The powder-puff shaped pink flowers are borne at the end of the branches. The pods are about 8″ long containing several seeds embedded in a pulp that has a sweetish taste and is eaten by animals. The branches are rather brittle. The wood is white soft and not very useful. Grown from seed. Distance apart 60 feet.

67. *Polyalthia Longifolia.* H. Ashopalav, asok; G. Asupalo.

A handsome tall growing evergreen shady tree with dark long pointed green glossy leaves with wave margins and a straight trunk. The greenish flowers are borne in March-April

in loose bunches on the small branches and are usually hidden in July-August . They are eaten by various creatures especially by flying foxes. The leaves are used for preparing festoons for house decoration. This tree is confused with the real ashok which is saraea indica. The wood is white, fexible and even grained and used for various purposes. Grown from seed. Distance apart 35 feet.

68. *Poinciana regia syn. Delonix regia.* H. Gul mohur, E. gold-mohur.

A well known medium sized deciduous tree with feathery leaves and large crimson or scarlet or orange flowers. It remains leafless for many months but is gorgeous in April and May when the flowers and new leaves appear. The large long flat brown pods hang on the tree often till the flowers appear next year. It is quick growing and grows readily from seed. The wood is of little value. Distance apart 40 feet.

69. *Pongamia glabra.* E. Indian beech; H. Kiramal; G. Karanj; K. Hoghe.

A medium sized handsome hardy evergreen tree with bright green shining leaves and smooth greyish brown bark. The pretty lilac coloured flowers are borne in great profusion in clusters in May-June. The broad woody pods each contain a single seed and take nearly a year to ripen. The leaves are often attached by a fungus which causes brown spots. They are bitter and not eaten by animals. The seeds yield a medicinal oil. The wood is not very useful. This tree grows well on the seashore and near water but also grows in dry places. Grown from seed. Distance apart 35 to 40 feet.

70. *Pterocarpus indicus.* E. Padak; H. Vijyasar; G. Bio; K. Hanemer.

A handsome lofty evergreen tree with dark green shining leaves and olive grey bar. The small golden yellow sweet scented flowers are borne in the hot season in clusters at the ends of the branches. The pod is flat and round with a broad wing. The heartwood is dark brick-red and is used for building, cartwheels, furniture etc. Grown from seed. Distance apart 40 feet.

71. *Pterospermum acerifolium.* H. Kanak champa.

A handsome medium sized evergreen tree with large round leathery leaves which are dark green above and silvery grey

underneath. The twigs are covered with a rusty coloured down. The bark is fairly smooth and dark grey. The large white sweet scented flowers are borne singly from February to April. The fruit is a large woody capsule containing numerous brown winged seed. The branches are liable to die back. The wood is used for planks etc. The leaves cause a great deal of litter especially on February-March. Grown from seed. Distance apart 40 feet.

72. *Pterospermum suberifolium.* H. Muchkand.

A medium sized evergreen tree with oblong leaves set in one plane or opposite sides of the twigs. They are usually irregularly lobed, dark green above and silvery below. The fairly large white sweet scented flowers are borne singly in the axils of the leaves. The narrow pointed woody fruit is covered with white velvety down and contains a number of winged seeds. The wood is hard and tough and used for building, cart making etc. Grown from seed. Distance apart 25 to 35 feet.

73. *Randia dumetorum.* H. Main Phal; G. Mindal.

A small evergreen tree with stiff branches armed with spines and dark green leathery leaves. The white or greenish yellow fragrant flowers are borne singly on two or three together in the axils of the leaves. The fruit is an oval yellow berry. Grown from seed. Distance apart 25 feet.

74. *Saraca indica.* E. Asoka; H. Ashok; K. Ashoka.

A small spreading evergreen tree with dark green leaves and smooth brown bark. When the leaves are young they are reddish in colour and hang down limply in bunches. The bright red flowers are borne in clusters close to the branches. The flat leathery pods are covered with netlike markings. This tree is sacred to the Budhist as Gautama Budha was born beneath its shade. The wood is not valuable. Grown from seed. Distance apart 30 feet.

75. *Schizolobium excelsum.*

A tall handsome tree resembling gulmohr the leaflets being somewhat larger. It bears brilliant yellow flowers in open clusters at the ends of the branches in the hot weather. The pod is short and flat containing a single seed. It bursts when ripe. The trunk is tall and straight and the bark is greyish pink. The branches are rather brittle. Grown from seed. Distance apart 45 feet.

76. *Spathodia companulata.* E. Scarlet bell tree.

A fairly large evergreen tree with large pinnate leaves and grey bark. It bears large showy scarlet bell shaped flowers in bunches at the tips of the branches in January-February and also at intervals during the year. The fruit is long pointed woody and erect and ripens in June-July. This is a good shady tree for the roadside. Easily grown by cuttings. Distance apart 40-45 feet.

77. *Sterculia alata.*

A very tall deciduous tree with a straight trunk, smooth grey bark and broad heart shaped leaves. The small greenish flowers are borne in dense clusters among the branches. They have an unpleasant smell. The fruit is large almost spheical and woody containing a number of winged seed. The trunk of the tree is often strengthened by several narrow buttresses. Grown from seed. Distance apart 40 feet.

78. *Sterculia foctida.* E. Dung tree; H. Jangli badam.

A tall handsome deciduous tree with spreading branches and leaves crowded at the ends of the branches, The branches are whorled and the tree sometimes takes an umbrella shape. The leaflets are long and radiate from the ends of long leaf stalks. Inconspicuous dull purplish flowers are borne at the ends of the branches in February-March. They have a very offensive smell. The boat shaped pods are usually borne in hunches of tree to five each pod containing a few large black seeds. The wood is light and of little value. Grown from Distance apart 40 to 45 feet.

79. *Swietenia macrophylla.* E. large leaved mahogany.

A large evergreen tree with dark green leaves and rough brown bark. The inconspicuous white flowers are borne in loose clusters among the leaves. The fruit is a large woody oval capsule containing a number of brown winged seeds. The young trees bear larger leaves and may be mistaken for a different variety. The wood is of good quality and may be used for many purposes including furniture. Grown from seed. Distance apart 40 to 50 feet.

80. *Swietenia Mahogoni.* E. Spanish mahogany.

A large evergreen tree with small dark green shining pointed leaflets and rough brown bark. The tender leaves are a bright emerald green. Young plants have much larger leaves and

may be mistaken for S. macrophylla. The small greenish yellow flowers are borne in open clusters in the axils of the leaves. The fruit is a hard woody spherical capsule containing many brown winged seeds. The wood is very durable and is world famous and largely used for furniture shipbuilding etc. This is a good shady tree for the roadside. Grown from seed Distance apart 40 to 50 feet.

81. *Tamarindus indica.* E. Tamarind; H. Imli; M. Chinch; G. Amli; K. Hunise.

A large handsome spreading evergreen tree with small thick jade green leaflets and rough dark grey bark marked with cracks. The feathery leaves are bright emerald green when young and give the tree a distinctive appearance. It is one of the best known Indian trees and grows easily in any kind of soil. The pods are long curved and irregularly swollen. The acid pulp is a favourite ingredient in curries and chutneys and a large trade is carried on in it. The seeds are eaten in times of scarcity. The wood is hard and is used for wheels, mallets, planes etc. The tree has many medicinal uses. It is a long lived tree and good for the roadside. Easily grown from seed. Distance 50 feet

82. *Terminalia Arjuna.* E. White murdah; H. Kohas; M. Sadhha; K. Matri.

A fairly large deciduous tree with narrow blunt leathery leaves arranges opposite to each other. The small yellowish flowers are borne in open clusters at the ends of the branches and resemble mango blossoms from a distance. The fruits are woody pear shaped and have five narrow wings running from the tip to base. Each fruit contains a single seed. The bark is pinkish grey and used for tanning. The wood is hard and used for buildings, carts etc. The bark and the leaves are used in medicines. Flowers appear in April-May. Grown from seed. Distance apart 40 feet.

83. *Terminalia Belerica.* E. Belleric myra bolan; H. Beheda; M. Beheda; G. Beheda; K. Teri.

A large handsome deciduous tree with large pointed leathery leaves, brown bark and a tall straight trunk which is often buttressed. The small inconspicuous greenish yellow flowers have an offensive smell. The rather small oval or spherical velvety fruit contains one seed. They are eaten by cattle. The

kernals are eaten by men. The leaves can be used as fodder. The wood is not durable and is used for planking, packing cases etc. The fruit is one of the myrobolans of commerce and is used for dyeing and tanning. Grown from seed. Distance apart 45 to 55 feet.

84. *Terminalia catappa.* E. Indian almond; H. Badami; K. Velag.

A tall ornamental deciduous tree with large shining blunt leaves and branches spreading horizontally in whorls from a straight stem. The rough bark is greyish brown. The leaves are wide at the apex and taper towards the leaf stalk. They turn a bright crimson when ready to drop. The fruit is egg shaped but flattened and pointed. It contains a single nutlike seed embedded in a red fibrous pulp. The kernels are eaten. The bark and leaves yield a black dye. The wood is not very useful. Grown from seed. Distance apart 40 feet.

85. *Terminalia chebula.* E. Black myrobolan; H. Har; K. Anilekai;

A tall deciduous tree with fairly large pointed leaves and thick dark brown bark. The small yellowish white flowers are borne in narrow spikes mostly at the ends of the branches. They have an unpleasant smell. The small oval fruits each contain a single seed which is sometimes eaten. These fruits are the most important of the myrabolans and are used in tanning and dyeing as well as ink making. The tree had medicinal value. The wood is hard and used for furniture as well as carts, house building etc. Grown from seed. Distance apart 35 to 40 feet.

86. *Tectona grandis.* E. Teak; H. Sagun; K. Tejin.

A tall deciduous tree with large broad pointed opposite leaves, greyish brown bark and a straight trunk. The leaves are rough dark and green above and pale down below. The small whitish flowers are borne in very large open bunches at the ends of the branches. The small round fruit is soft and spongy containing a single seed. The flowers appear from June to August and the seeds ripen in December-January. The leaves turn very dingy before dropping. Grown from seed. Distance apart 30 feet.

87. *Tectona Hamiltoniana.*

A medium sized deciduous tree with fairly large oval pointed leaves which are rough above and downy below. The bark is brownish grey and peels off in thin flakes. The small blue flowers are borne in large open clusters at the ends of the branches in April-May making the tree quite attractive. The fruit is a small one seeded berry. The wood is light brown of good quantity but heavier and harder than teak. Grown from seed. Distance apart 35 feet.

88. *Thespasia populnea.* E. Tulip tree; H. Paras pipal; G. Paras piplo; K. Huvarsi.

A medium sized evergreen tree with dark green heart shaped pointed leaves and rough dark brown bark. The large funnel shaped flowers are yellow with crinkly petals and a dark red centre when they open but fade to a dull pink or purple when about to wither. The smooth oblong fruit about 1½″ diam. contains a number of silky seeds. The bark yields a strong useful fibre. The wood which is of a reddish colour is strong and durable and is used for gun stocks, carts etc. The tree has many medicinal uses. Easily grown from cuttings. Does well on the sea coast and in moist places. Distance apart 35 to 40 feet.

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